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EXAMINER	
JEANGLAUDE, J	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
08/920,329	Mark E. Tuttle
Examiner	**Group Art Unit**
Jean B. Jeanglaude	2735

☒ Responsive to communication(s) filed on *May 18, 1999* .

☒ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-49* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-49* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____ .

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____ .

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

This action is responsive to communication filed on May 18, 1999.

Response to Amendments/Arguments

1. Regarding the Applicant's argument on page 8 lines 23, 24, page 9, line 1, Gokcebay teaches an access control system that comprises a key having the sides less than the upper and lower surfaces of the key (see fig. 2).

2. Regarding the Applicant's arguments on page 11, lines 11 - 14, Gokcebay teaches an access control system that comprises a key having the sides less than the upper and lower surfaces of the key in which indicia is on its side (see fig. 2; col 6, lines 4 - 9).

3. Regarding the Applicant's argument on page 12, lines 6 - 8, Gokcebay discloses an access control system that comprises a key having perceptible information on its side (see fig. 2; col 6, lines 4 - 9).

4. Regarding the Applicant's argument on page 12, lines 16 - 19, the combination of the MacLellan, Lebby and Gokcebay renders the claim obvious.

5. Regarding the Applicant's argument on page 13, lines 15 - 18, Gokcebay teaches an access control system that comprises a key having the sides less than the upper and

lower surfaces of the key of which its side has visibly perceptible information (see fig. 2; col 6, lines 4 - 9).

6. Regarding the Applicant's argument on page 14, lines 5 - 8, the examiner maintains that Kohno discloses a card including an upper and lower surfaces and a plurality of sides, and the sides have a dimension less than smallest dimensions of the upper and lower surfaces *(the space between the dotted and the solid lines of card form the thickness of the card which is inherently smallest than the upper and lower surfaces of the card)* (see fig. 5).

7. Regarding the applicant's argument on page 15, lines 10 - 12, the Examiner maintains that Lebby applies and cures an encapsulant over the first substrate to form a composite substrate (abstract; figs. 1 - 5).

8. For at least the above reasons the rejection is maintained as follow:

Applicant's arguments with respect to claims 1 - 49 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 U.S.C. § 103

9. Claims 1 - 20, 22, 23, 24, 26, 31, 32, 34 - 36, 38 - 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacLellan et al (US Patent number 5,649,296) in view of Lebby et al (US Patent Number 5,493,437) and Gokcebay (US Patent Number 5,245,329)

10. Regarding claims 1, 5, 6, 9, 11 -13, 15, 16,18, 23, 26, 34, 35, 38 MacLellan et al teach a remote intelligent device and method *(duplex radio communication system) (a radio frequency identification device = rfid)* (figs. 1 - 5) that comprises a processor (405, figs. 4, 5), a communication circuitry (105, figs. 4, 5) comprises a battery (power source) (410, figs. 4, 5) transponder (tag) circuitry (figs. 4, 5) configured to at least one of communicate and receive electronic signals (abstract; figs. 1 - 5) but are silent on teaching a remote intelligent communication device that comprises a card-thin housing that includes an upper surface, a lower surface and at least one side extending between the upper surface and the lower surface forming the card thin housing (housing) and communication circuitry within the housing **(part of claims 1, 6, 13, 23, 34)**.

11. However, Lebby et al, in a related field, teach the desire of a communication device that comprises a card-thin housing (casing) (11, fig. 1) that includes an upper surface *(top of the casing 11) (not label)* and a lower surface *(bottom part of the casing) (not label)*; at

least one side extending between the upper surface and the lower surface forming the card thin housing (fig 1) and communication circuitry (13, fig 2) within the housing (casing) (col 2 lines 50 - 53) for the purpose of communicating optical information signals therethrough.

12. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a remote intelligent communication device that comprises an upper surface, a lower surface and at least one side extending between the upper surface and the lower surface forming the card thin housing and communication circuitry within the housing in MacLellan et al as evidenced by Lebby et al because MacLellan et al suggest a duplex radio communication system for the purpose of generating a modulation signal into a radio carrier signal and Lebby et al desirably teach a communication system including the aforementioned limitations for the purpose of communicating optical information signals therethrough.

13. Both MacLellan et al and Lebby et al fail to teach a remote intelligent communication device of which the side has visibly perceptive information thereon **(part of claims 1, 6, 13, 23, 34)**.

14. However, Gokcebay teaches the desire of an access control system that comprises a key (16, fig. 2) in which the side having visibly perceptible information thereon and the

dimension of the side being less than smallest dimensions of the upper and lower surfaces (col 6, lines 4 - 9) for the purpose of carrying information (encoded data) relating to a personal authenticating feature of the intended user of the key.

15. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a remote intelligent communication device of which the side has visibly perceptive information thereon in MacLellan et al and Lebby's system as evidenced by Gokcebay because MacLellan et al suggest a duplex radio communication system (radio frequency identification device) for the purpose of generating a modulation signal into a radio carrier signal, Lebby et al suggest a communication system for the purpose of communicating optical information signals therethrough and Gokcebay desirably teaches a communication system including a communication device of which the side having visibly perceptible information thereon for the purpose of carrying information (encoded data) relating to a personal authenticating feature of the intended user of the key.

16. MacLellan et al are silent on teaching a remote intelligent communication device (radio frequency identification device) wherein the housing comprises a substrate and encapsulant **(claims 2, 10)**; a remote intelligent communication device wherein the

substrate comprises the upper surface and the encapsulant comprises the lower surface **(claim 3)**.

17. However, Lebby et al, in a related field, have the desire to teach a communication system wherein the housing (casing) comprises a substrate and encapsulant (abstract; figs. 1-5) and the substrate (25, fig. 2) comprises the upper surface and the encapsulant (not label) comprises the lower surface (fig. 2) for the purpose of communicating optical information signals therethrough.

18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a remote intelligent communication device wherein the housing comprises a substrate and encapsulant and wherein the substrate comprises the upper surface and the encapsulant comprises the lower surface in MacLellan et al as evidenced by Lebby et al because MacLellan et al suggest a duplex radio communication system for the purpose of generating a modulation signal into a radio carrier signal and Lebby et al desirably teach a communication system including the aforementioned limitations for the purpose of communicating optical information signals therethrough.

19. Regarding claims 19, 22, 31, 32, 33, 39, 40 , MacLellan et al teach a communication device and method that comprises a transponder circuitry (105, figs. 4, 5) and a processor (405, figs. 4, 5) coupled with the antenna (401, figs. 4, 5) a battery (410, figs. 4, 5) in electrical connection with the transponder circuitry (105, figs. 4, 5). MacLellan et al fail to teach a communication device and method that comprises a substrate having a support surface, a cured resin upon the support surface, the cured resin and substrate forming a housing having an upper and a lower surface interconnected by side surfaces **(claims 19, 31, 39).**

20. However, Lebby et al, in a related field, teach the desire of a communication device and method (fig 1) that comprises a substrate (25, fig. 2) having a support surface (not label), a cured resin upon the support surface (fig 2), the cured resin and substrate forming a housing having an upper and a lower surface interconnected by side surfaces (fig. 1) for the purpose of communicating optical information signals therethrough.

21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a communication device and method that comprises a substrate having a support surface, a cured resin upon the support surface, the cured resin and substrate forming a housing having an upper and a lower surface interconnected by

side surfaces in MacLellan et al as evidenced by Lebby et al because MacLellan et al suggest a duplex radio communication system for the purpose of generating a modulation signal into a radio carrier signal and Lebby et al desirably teach a communication system including the aforementioned limitations for the purpose of communicating optical information signals therethrough.

22. MacLellan et al, Lebby et al are silent on teaching a communication device and method that comprises identification indica on at least one of the side surfaces of the housing **(claims 19, 31, 39);**

23. However, Gokcebay has the desire to teach a communication device that comprises a communication device and method (fig. 2) identification indica *(20, fig. 2)* on at least one of the side surfaces of the communication device for carrying information (encoded data) relating to a personal authenticating feature of the intended user of the key.

24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a communication device and method that comprises identification indica on at least one of the side surfaces of the housing in MacLellan et al and Lebby's system as evidenced by Gokcebay because MacLellan et al suggest a duplex

radio communication system *(radio frequency identification device)* for the purpose of generating a modulation signal into a radio carrier signal, Lebby et al suggest a communication system for the purpose of communicating optical information signals therethrough and Gokcebay desirably teaches a communication system including a communication device (a key) that comprises identification indica on at least one of the side of its surfaces for carrying information (encoded data) relating to a personal authenticating feature of the intended user of the key.

25. MacLellan et al, Lebby et al, and Gokcebay are silent on teaching a remote intelligent communication device and method wherein the card-thin housing has a thickness less than about 100 mils **(claims 4, 17, 20, 24, 36)** and a radio frequency identification device wherein the visibly perceptive information is less than about 50 mils in height **(claims 8, 14)**.

26. Such limitations would have been an obvious matter of choice of design to provide a remote intelligent communication device and method wherein the card-thin housing has a thickness less than about 100 mils and a radio frequency identification device wherein the visibly perceptive information is less than about 50 mils in height in MacLellan et al, Lebby et al and Gokcebay's system since the Applicant has not disclosed that such a

limitation solves any stated problem or critical for any particular purpose and it appears that the invention would perform equally well.

27. MacLellan et al, Lebby et al and Gokcebay teach all the limitations of claims 15 and 16 but fail to specifically teach a card wherein the identification indicia identifies the card **(claim 15)** and a card wherein the identification indicia comprises at least one of a manufacturing date of the card and a lot of number **(claim 16)**.

28. However, identification indicia is known in the art as a type of identifying information *(for instance, in the case of a credit card the name of the stores or the banks is written on the card to identify the provider of the card. In addition, for articles of personal property the identifying indicia can include model numbers and manufacturing date.)*

29. It would have been obvious to one of ordinary skill in the art a the time the invention was made to provide card wherein the identification indicia identifies the card and a card wherein the identification indicia comprises at least one of a manufacturing date of the card and a lot of number in MacLellan et al. Lebby et and Gokcebay system because identification indicia is well known in the art and one skilled in the art recognizes identification indicia as a type of identifying information such as manufacturing date, model numbers.

30. Claims 21, 25,33, 37, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacLellan et al (US Patent number 5,649,296) in view of Lebby et al (US Patent Number 5,493,437) and Gokcebay (US Patent Number 5,245,329) as applied to claims 19, 23, 31,39 above, and further in view of Block et al (US Patent Number 4,461,793).

31. Regarding claims 21, 25, 33, 37, 41, MacLellan et al, Lebby et al and Gokcebay teach all the limitations of the claims but fail to specifically teach a communication device wherein the identification indica is provided on the resin **(claim 21)**, a method wherein the visibly perceptible information comprises identification indicia **(claims 25, 37)**; a method of forming a communication wherein the visibly perceptible information comprises identification indicia (claim 33) and a method of forming a communication device wherein the identification indicia identifies the communication device **(claim 41)**.

32. However, Block et al, in an analogous art, teach the desire of a device which identification indicia (13, fig 1) is provided on the resin (12, fig. 1); a method wherein the visibly perceptible information (13) comprises identification indicia (abstract); a method of forming a communication wherein the visibly perceptible information comprises identification indicia (abstract; figs. 1, 2) and a method of forming a communication device wherein the identification indicia identifies the communication device (abstract; figs. 1, 2)

for the purpose of printing coating that is useful for application to heat shrinkable identification devices.

33. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a communication device wherein the identification indica is provided on the resin, a method wherein the visibly perceptible information comprises identification indicia; a method of forming a communication wherein the visibly perceptible information comprises identification indicia and a method of forming a communication device wherein the identification indicia identifies the communication device in MacLellan et al, Lebby et al and Gokcebay's system as applied to claims 19, 23, 31,39 as evidenced by Block et al. because MacLellan et al suggest a duplex radio communication system *(radio frequency identification device)* for the purpose of generating a modulation signal into a radio carrier signal, Lebby et al suggest a communication system for the purpose of communicating optical information signals therethrough, Gokcebay suggests a communication system for the purpose of carrying information (encoded data) relating to a personal authenticating feature of the intended user of the key and Block et al desirably teach a system including the aforementioned limitations for the purpose of printing coating that is useful for application to heat shrinkable identification devices.

Claim Rejections - 35 U.S.C. § 102

34. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

35. Claims 27 - 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Kohno (US Patent Number 5,462,374).

36. Regarding claims 27 - 29, Kohno teaches a method of forming a card (abstract; fig. 4) that provided a card (1, fig. 4) that includes an upper surface (top view of card 1) , a lower surface (Bottom view of card 1) and a plurality of sides (four sides), the sides individually having dimension less than smallest dimensions of the upper and lower surfaces *(the space between the dotted and the solid lines of card form the thickness of the card which is inherently smallest than the upper and lower surfaces of the card)*; providing a print head (4, fig. 4); moving at least one of the card and the print head relative to the other of the card an print head (col 4 lines 32 - 55); using the print head (4, fig. 4), encoding visibly perceptible information on at least one side of the card wherein the encoding is provided during the moving and wherein the visibly perceptible information comprises identification indicia (fig. 4; abstract; col 4 lines 31 - 56) *[in fig. 4, the card 1 is being slid to the machine in one direction or moved in one direction. When reaching the*

print head 4 visibly perceptible information is being printed on the card and the visibly perceptible information can be the serial number or names and so forth].

Claim Rejections - 35 U.S.C. § 103

37. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

38. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kohno (US Patent Number 5,462,374 in view of MacLellan et al (US Patent Number 5,649,296).

39. Regarding claim 30, Kohno teaches all the limitations of the claim but fail to specifically teach a method of forming a card that comprises forming transponder circuitry with the card prior to the encoding.

40. However, MacLellan et al, in a related field, teach the desire of a full duplex radio communication that comprises a transponder (tag) for the purpose of generating a modulation signal into a radio carrier signal.

41. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a method of forming a card that comprises forming transponder circuitry with the card prior to the encoding in Kohno as taught by MacLellan et al because MacLellan et al teach a full duplex radio communication including the aforementioned limitations for the purpose of generating a modulation signal into a radio carrier signal.

42. Claims 42 - 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohno (US Patent Number 5,462,374) in view of Ganot (US Patent Number 5,166,680).

43. Regarding claims 42 - 44, 46, 46, 47, 49, Kohno teaches a method of encoding visibly information that provides a plurality of said cards in a tack (1, fig. 4) ; selecting one of the cards (1, fig. 5) prior to the supporting ; a print head (4, fig. 4; col 5 line 17); moving the card relative to the print head (fig. 4) and encoding identification indicia on at least one of the side surfaces with the print head while moving the card relative to the print head (fig. 4; abstract; col 4 lines 31 - 56) *[in fig. 4, the card 1 is being slid to the machine in one direction or moved in one direction. When reaching the print head 4 visibly perceptible information is being printed on the card and the visibly perceptible information can be the serial number or names and so forth].* Kohno is silent on teaching a card housing

communication circuitry therein, the card having an upper and lower surfaces interconnected by side surfaces (claims 42, 46).

44. However, Ganot teaches the desire of a communication device that comprises a card housing communication circuitry (figs. 1, 5) that has an upper and lower surface interconnected by side surfaces (fig. 1) for the purpose of transmitting to the card tariffs (prices) associated with each parking lot .

45. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a method that provides a card housing communication circuitry therein, the card having an upper and lower surfaces interconnected by side surfaces in Kohno's system as taught by Ganot because Kohno suggests an apparatus for the purpose of printing a graphic design on the surface of a card and Ganot desirably teaches a communication system including the above limitations for the purpose of transmitting to the card tariffs (prices) associated with each parking lot .

46. Regarding claims 47, 49 , Kohno teaches a method of encoding visibly perceptible information wherein the moving comprises passing the card by the print head intermediate a pair of driving processing rollers (fig. 4; abstract; col 4 lines 31 - 56) and the print head (4, fig. 4) remains stationary relative to the moving card during printing (fig. 4)*[in fig. 4, the*

card 1 is being slid to the machine in one direction or moved in one direction. When reaching the print head 4 visibly perceptible information is being printed on the card and the visibly perceptible information can be the serial number or names and so forth].

47. Moreover Kohno and Ganot teach all the limitations of claims 45 and 48 but fail to specifically teach a method of encoding visibly perceptible information on a communication device wherein the card has a thickness less than 100 mils.

48. Such limitations would have been an obvious matter of choice of design to provide a method of encoding visibly perceptible information on a communication device wherein the card has a thickness less than 100 mils in Kohno and Ganot's system since the Applicant has not disclosed that such a limitation solves any stated problem or critical for any particular purpose and it appears that the invention would perform equally well.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until

after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Patzel et al (US patent Number 4,593,185) discloses a safety lock including a key that contains encoded data on its side.

Contact Information

49. An inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Jeanglaude whose telephone number is (703) 305-2701. The examiner can normally be reached on Monday through Friday from 8:00 A.M. to 4:00 P.M..

50. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Horabik, can be reached on (703) 305 - 4704. The fax phone number for this Group is (703) 305-3988.

51. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305 -8576.

Jean B. Jeanglaude

July 29, 1999

MICHAEL HORABIK
SUPERVISORY PATENT EXAMINER
GROUP 2700